This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representation of The original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.



Deutsche Kl.: 21 d2, 12/03

(II)	Offenlegungsschrift 1927 904			
@ @		Aktenzeichen: Anmeldetag:	P 19 27 904.0 31. Mai 1969	•
€		Offenlegungstag	17. Dezember 1970	
•	Ausstellungspriorität: —			·
er en anne anne de la companya de l	ومارا فالمراقب الرامة فالمعار أأناف المتعجد للبادي أأمر للباللة فالمحاويد للسابك	ginamakan menjala sa Gajajajajakan kang	e La companya di santana	. •
9	Unionspriorität Datum: —			
3	Land: Aktenzeichen:	n Saku da shi ili shi ka Sakara da shi shi shi	変形的 generally Page Air Salas and Carlos Carlos	
	Bezeichnung: Wechselri			
6	Zusatz zu:	\$6. ³ 1.5 (19.8)		
©			delle and the profit	
Andrew Co.	Vertreter: Prinz, Dip	ilIng. Egon; Haus plIng. Gottfried;	er, Dr. rer. nat. Gertrud; Patentanwälte, 8000 München	
	Als Erfinder benannt: Larsen, A		Bank, N. J. (V. St. A.)	

Prifungsantrag gemäß § 28 b PatG ist gestellt

医眼前 有主义的复数形式

रामुक्ति अस्ति है को रिवेरीके स्थितिक विकेत अधिक है है है।

T 1927904

dies ist ein sehr wünschenswertes Merkmal, da die Spannungsquellen, die Rechteckwellen abgeben, nicht schwer belastet sind.

🗝 พระวางเพ่นชื่องน้ำซึกเรากานมีจะกระสาสหรับมาเล่นระจายกำกรกกา

- Marchallate trees the common to be built and the

Die spezielle Gestaltung des Transformators weist ferner den Vorteil auf daß eine wirksame Strombegrenzung im Ausgangskreis erreicht wird.

Die Erfindung umfaßt weitere Wele, Werkmale und Vorteile, die in der folgenden, ins einzelne gehende Beschreibung in Verbindung mit den Figuren der Zeichnung erläutert werden sollen.

THE STORY AND LOCAL CONTRACT AND CONTRACT MANY STATES OF

Das technische Gebiet, auf das sich die Erfindung bezieht, unfaßt eine Wechselrichterschaltung, die wirksam ist, um eine im wesentlichen von Oberschwingungen freie Sinuswelle züzufthren, wobei dieser Wechselrichter vergleichsweise einfach, kompakt und leicht ist, außerdem sehr wirksam ist und in einfacher Weise zu steuern ist und zwar entweder manuell oder automatisch. In dem Figuren der Zeichnung ist schematisch ein Ausfühlungsbeispiel dargestellt. Es zeigen:

- Tig. 1 ein schenatisches elektrisches Schaltbild einer Wechselrichterschaltung gemaß der Erfindung,
- Fig. 2 eine Vorderansicht eines Transformators, der in der in Fig. 1 dargestellten Wechselrichterschaltung verwendet wird, wobei die Gestaltung einer Blechkernbaugruppe des Transformators gezeigt ist und die Anordnung eines Paares von Primärwicklungen und einer Sekundarwicklung auf diesem Blechkern,
 - Fig. 3 eine graphische Darstellung eines Paares von Tastpulsen, die der Wechselrichterschaltung zugeführt
 werden und eines Paares von Rechteckwellen, die
 einem Paar Primärwicklungen bei leichter Belastung
 zugeführt werden.

Die Wechselrichter 21 und 22 sind wirksam, um Rechteckwellen den Wicklungen 15 und 16 zuzuführen und die relative Fhase dieser Rechteckwellen wird gesteuert, um den richtigen Ausgang in der Sekundärwicklung 13 zu erzeugen. Um die Wechselrichter 21 und 22 zu steuern, ist eine Tastpulsschaltung 28 vorgesehen, die Tastsignale den Eingangsanschlüssen 29 und 30 des Wechselrichters 21 und den Anschlüssen 31 und 32 des Wechselrichters 22 zuführt. Die Tastpulsschaltung kann automatisch durch ein Signal gesteuert werden, welches dieser Schaltung von den Ausgingen einer spannungsempfindlichen Schaltung 33 und einer stromempfindlichen Schaltung 34 zugeführt wird. Die Eingangsanschlüsse der spannungsempfindlichen Schaltung 33 sind parallel zur Sekundarwicklung 13 geschaltet und die Eingangsanschlüsse der stromenpfindlichen Schaltung 34 sind an einen Widerstand 35 angeschlossen, der in Serie zwischen der Sekundarwicklung 13 und der Last 12 liegt.

Eine wesentliche Komponente der Schaltung ist ein Kondensator 36, der parallel zur Sekundärwicklung 13 geschaltet ist. Der Kondensator 36 hat einen derartigen Wert, daß dieser mit der effektiven Induktanz der Sekundärwicklung 13 zusammenwirkt, um bei der gewünschten Betriebsfrequenz einen Parallel-Resonanzkreis zu bilden. Die effektive Induktanz der "icklung 13 wird gemessen, wenn die Primärwicklungen 15 und 16 kurzgeschlossen sind.

Im Betrieb werden die Rechteokwellen, die in den Frimerwickling in 15 und 16 erzeugt Werden, bezüglich der Phase
derart gestruert, das eine gerade ausreichende Erregung
dem abgestill ten oder Resonanz-Sellundarkreis zugeführt
wird, um ile Estverlüste zu erganzen, wenn die Ausgengsspannung den gewinschten Wert hat:

[第一]在中国的人,都由南部市内的一面,是建立,他们的自己的人。

haben. Ein magnetischer Webenschluß 46 ist dicht bei der Frimärwicklung 15 und der Sekundärwicklung 15 angeordnet, während ein magnetischer Webenschluß 47 dicht bei der Frimärwicklung 16 und der Sekundärwicklung 13 angeordnet ist. Es ist zu erkennen, daß die Sekundärwicklung 15 eine Zuordnung zu den Primärwicklungen 15 und 16 und den magnetischen Webenschlüssen 46 und 47 hat.

Die magnetischen Webenschlüsse 46 und 47 schaffen einen Hagnetflußweg sowohl für die Primarwicklungen 15 und 16 als auch eine Hagnetflußweg für die Sekundarwicklung 13. Durch diese magnetischen Hecenschlüsse 46 und 47 ist mit dem Transformator 14 sowohl eine Strombegrenzung als auch eine Unterdrücklung von Oberwellen möglich.

· 建石炭 网络加州的加州(金州)东西的山东加州。 化

Die strombegrenzung erfolgt dadurch, daß ein Paar von parallelen Magnetflußwegen gebildet wird, die Eurch die Einden 48 und 49 für die erinarwicklung 15 da gestellt sänd und ferner ein Paar von parallelen Nametflußwegen, die durch die Linden 50 und 51 f. die Primirwicklung 16 angedeutet sind. Henn die Last 12 zu grou wird, wird lediglich der Abschalt, des Transformatorkern, der von den Plußwegen 48 und 50 beaufschlagt wird, gesättigt, wobei die Plußwege 49 und 51 mit hohem magnetischen Widerstand im wesentlichen nicht beeinflußt werden und dedurch wird den Strom in den Primarwicklungen 15 und 16 begrenzt.

Dine Unterdrückung von Oberwellen wird ebenfalle durch die niedrige diese neuartige Gestaltung erzielt. Durch die niedrige Impedanz des Kondensators 36 gegenüber Oberwellenspannungen tritt der größte Tefl des Oberwellengenaltes der aquivalenten Eingangsspannung (untere Linie der Fig. 3 und 4) an einer effektiven Induktanz auf, die von dem Magnetfluß-

ATTOR LOOK OF TAME IN LACE VARIABLE OF THE STATE OF STATES

Pig. 5 seigt einen typischen Aufbau der Wechselrichterschaltung 21, die verwendet werden kann, um die Rechteckwelle 3) su erzeugen. Ein laar gesteuerte Siliziumgleichrichter 7 und 52 weiser Kathoden auf, die mit einem gemeinsquen Auschluß 59 verbunden sind. Die Anoden dieser
Gleichrichter sind mit den Anschlüssen 19 und 20 verbunden. Die Auschlüsse 19 und 20 sind ebenfalls mit einem
luschaltlonensator 60 verbunden und mit den Rathoden
eines Immes von Gleichrichtern 61 und 52. Die Anoden
der Gleichrichter 61 und 52 sind mit dem Anschluß 25
chner Luschaltinduktivität als verbunden. Das andere Ende

In Retrict wiri cin Tastpuls 5 (Fig. 3) zwischen den Ancolluscen 3; und 5; angele it, wodurch der Gleichrichter
deitend wird and dadure wird eine positive Rechteckwelle de Firmwicklung 1; des Transformators 14 zugehert, wa einer vorbestitten Zeit wird de Tastpuls 65
mit rirechen und ein Tastauts 55 wird mischer die Andell acc 60 und 5 angele ton det men wird für Gleichrichte 5: leitel, wobei zu dieser Zeit de Gleichrichter
dabeset tet wird und zum durch den Schaltkondensator
Omd die Schaltinduktivität 34 in einer Weise, wie sie
bei Festkörgerwechselrichterse altungen bekannt ist. Daauren wird eine negative Rechteckwelle der Primärwicklung
15 des Transformators 14 zugeichrt.

Die Wechselrichterschaltung 22 kann die gleiche sein, wie die in Fig. 5 dargestellte, um eine Rechteckwelle 40 zu erzeugen, die der Primärwicklung 16 des Transformators.

14 zugeführt wird.

Der

sa green geration to norphilloho

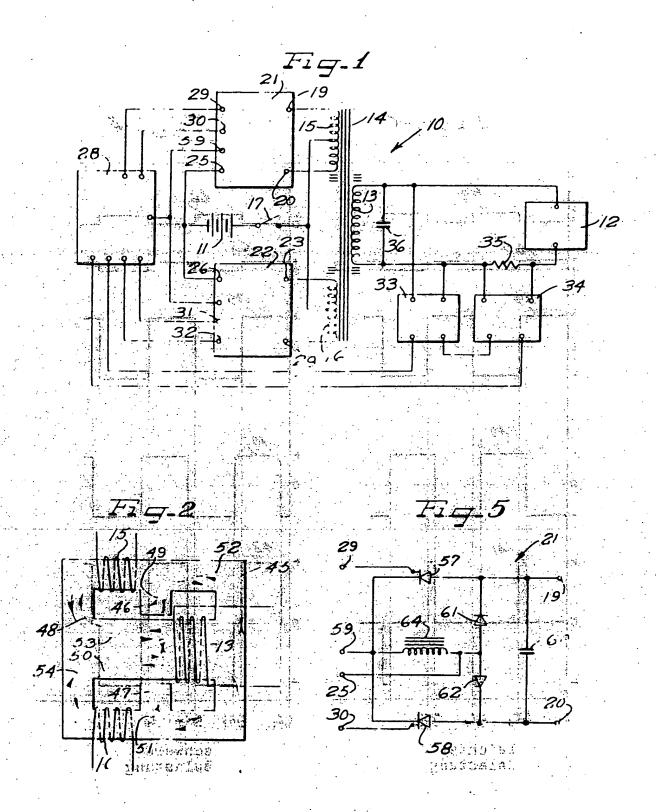
- elnor loot, gelemizolehnet durch elsen Transfermater, der einen kern aus einen megnetischen beterial aufweiet, eine Sekundürvicklung en dieses Korn, die nit der Lest vollenden ist, ein faar irleärwicklungen en dieses Korn, die nit der Lest vollenden ist, ein faar irleärwicklungen en dieses Korn, die induktiv mit der Sekundürwicklung gekeppelt eine, einen Kondenator, der parallel aur Sekundürwicklung geschaltst ist, un einen abgestimpten Sekundürwicklung geschaltst ist, un einen abgestimpten Sekundürwicklung geschaltst ist, un einen abgestimpten Sekundürwichen au bilden, in-richtungen, un ein Taar Rochteckustion den Inleürwicklungen sucurdären und Einrichtungen, un die relative Flass dieser niedittelweiten zu etouern, un eine musreichte le Errogung den abgestimten Sekundürkreis mundführen, un die Errogung etung und die Verlüste in Sekundürkreis musgeschien.
- kecheolflontor zur Zuführung elner Voohselogannung zu clust last, gelenasoichect durch clash Transferator, der elden Korn aus mynoticehen Haterial hat, eine Sahundurylokiung an diesen Kora, die Elt der Last verbuilen lut und oln mar Primireleklungen en Glosan Kern, die induitiv mit der Sokundirploklung Cokoppolt, sind, olpen Kondomanier, der parallel zur Dekundürwicklung geschaltet ist, um einen abgeotimaten Sekundürkreio zu bliden, Einrichtungen, un ein foor Rechtoplycilon don lalphrolellungen susullhren, Einrichtungen, wi die relative Phane dieser Rockieckwollen zu Stenome up oine augrolokenda Erreging den abgostienten Sakundlikeralo eucusuhren, wa die Belostungoverlusto und die Jestuste in Sekundlickweis euspugleichen, wenn die Ausconcernation designation wastries, magnetische Webonsoullies, die an hom worksahop gind, un often lague fluiweg su bilden, der die Primiswicklungen unabhängig von der Sakundurvicklung miteinander verbindet.

Page Principle in the control of the Rechtschiellen des Page Principle in the control of the Con

- Liner, constitute and antiques designated and constitutions. 5. Weensolvichter sur luftilirung einer Veoliselspannung eus cinor Inut, gokennzeichnet Gurch eines Transfernator, der einen korn aus magnoticellen voterial aufriciet, eine Sokundingickling en don Kern, die mit der bent verbunden ist, ein laar Irizardeklungen an den Korn, die induktiv ist dor behandlivicilung cole jolt ciri, claen hendencator, der narallol aur ichunduruloklung goodbaltet ist, un einen ebgectivaten Schunderroto en bilden, Lingiohtungen, un ein lagr lochice vollen den leineraleklungen ensufiliren, Linrichtungen, die euf die Luczencos samung eneprechan, un die relative liace dieser Rechtechaellen zu otouein, un cine cuare cherdo Laregunz don abgoaticaten Sekuncurkreio auguführen, un die Verluste den bekandärkreises und die Lalastungavorluute quezugloichen, wenn die Ausganguspanmung einen vorlectiusten Wert hat.
- 6. Wooksolrichter nur Zuführung einer Wechvolegannung zu einer Lact, Lehemseichnot durch einen Transfernstor, der einen Lern aus ungseitschen lieterfal hat, eine Sokundürwieklung en Kern, die nit der Laut verhanden ist, ein Paar brindivlohlungen en Korn, die induktiv nit der Bokundür-

wicklung

1.2100.



50601158600

Patentanmeld.v.30.5.1969 Wechselrichter TRW Inc., Cleverand

Power Inverter

One very important feature of this invention is the use of a specially designed transformer where the core is made of a magnetic material with a pair of exterior sections used for primarz windings and a middle section used for secondary windings. The area between the exterior sections and the middle section shall form a path for magnetic flux which joins the primary windings independently from the secondary windings and also forms a path for magnetic flux for the secondary winding that doesn't connect the primary windings.

Due to the magnetic side sections between primary and secondary windings harmonic voltage is suppressed efficiently at the exit. These magnetic sections allow for a magnetic flux with harmonic trequencies through the main flux pathway without being connected to the secondarz winding. As a consequence harmonic voltages are only generated at the primary windings. This is a very desirable feature as the voltage sources that emit squared waves are not heavily loaded.

Additionally this special design of the transformer has the advantage that an efficient limitation of electric current at the output circuit (??) can be achieved.

The invention comprises further target, features and advantages that shall be explained in detail together with the drawings in the diagrams as follows:

Technically speaking the invention/refers to an inverter wiring (?) with the purpose of creating a sinus curve that is essentially free from upper oscillation, whereas this power inverter is comparably simple, compact, light in weight, very efficient and easy to regulate either manually or automatically. The technical drewlings in the diagrams show a schematic plan of the dealgn.

Fig. 1: A diagram showing a schematic electric circuit of the power inverter wiring according to the invetion.

Fig. 2: Front view of a transformer which uses the power inverter shown in Fig. 1. It shows the design of the steel core of the trunformer and the positioning of a pair of primary windings and a secondary winding on this core.

Fig. 3: A graphic display of a pair of pulse-contacts that are added to the ballast and a pair of squared waves that are induced onto a pair of primary windings under a light leading.

Fig. 4: A graphic display of a pair of pulse-contacts induced onto the power inverter wiring (or regulator??) and a pair of squared waves induced onto the primary windings under heavy loading.

Fig. 5: A power inverter wiring that can be used with the wiring displayed in Fig. 1 in order to generate squared waves that can be induced on the primary windings of a transformer.

Firstly it shall be referred to Fig. 1. (10) is a power inverter wiring developed according the invention that has the purpose of transorming DC coming from the battery (11) into AC under a leading (12). The power inverter wiring is comparably simple and light though extremely efficient. Purthermore this power inverter functions in such a way that a sinus curve free from upper oscillations is induced and the output (exit?) of this wiring can be simply regulated either manually or automatically.

The loading (12) is connected to the seconday winding (13) of a transformer (14) that shows a pair of primary windings (15, 16) with a neutral bar (?????). The neutral bars (??) are connected to the positive pole of the battery (11) via a switch (17). The end terminations of the primary winding (15) are linked with terminations (19+20) of a first power inverter (21) while a second power inverter (22) shows terminations (23 + 24) that are connected to the end terminations of winding (16). The connections (25 + 26) of power inverters (21 +22) are connected to the negative pole of the battery (11).

Power inverters 21 + 22 are used for inducing squared waves onto windings 15 + 16. The relative phase of these squared waves is regulated in order to create the correct output (exit?) in the secondary winding 13. In order to regulate power inverters 21 + 22 a pulso-contact switch is used to send out tactile signals to the entrance terminations 29 + 30 of power inverter 21 and to terminations 31 + 32 of power inverter 22. The pulso-contact switch can be operated autmatically through a signal which is introduced to this switch through the exit (output ?) of a voltage sensitive switch 33 and a current sensitive switch 34. The entrance terminations of the voltage sensitive switch 33 are parallely connected to the secondary winding 13. The entrance

terminations of the current sensitive switch 34 are connected to a resistance 35 which is connected in series between secondary winding 13 and loading 12.

An essential component of the wiring is a condensator (26) that is connected parallely to the secondary winding (13). The capacitor unit (36) has such a value that it works in combination with the effective induction of the secondary winding (13) to form a parallel resonance circle at the desired operational frequency. The effective induction of the winding (13) is measured when the primary windings 15 + 16 are short-circuited. Rogarding the phase, in operation the squared waves generated by the primary windings 15 + 16 are regulated in such a waz that a just about sufficient excitation (impulse?) is induced on the tuned or resonace secondary circuit in order to complete the leading losses who the exit valtage has reached the desired value.

Fig. 3 shows graphically the squared waves 39 + 40 that are induced on primary windings 15 + 16 with a light loading. The squared waves 39 + 40 are mainly shifted out of phase in order to induce an equivalent entrance (input???) (taken as a whole) for primary windings 15 + 16 that shows short positive and negative pulses. This is indicated by wave 41.

During the time interval t_0 - t_1 both squared waves 39 + 40 have the same appulitude. However, one is positive and the other is negative. Therefore the resulting signal induced on primary windings 15 + 16 equals zero in total. At the time t_1 the squared wave 40 changes ist polaritz and coincides with squared wave 39. Thus an equivalent entrace (input??) is supplied for primary windings 15 + 16 which, as a whole, has the form of a short pulse 41.

Fig. 4 shows graphically the squared waves 39 + 40 that are induced with a heavy loading on primary windings 15 + 16. The squared waves 39 + 40 are now generally in phase in order to generate an entrance (input?) pulse 42 of relatively long duration as a whole in the primary windings 15 + 16. The operational procedure during the time intervals t_0 - t_1 & t_1 - t_2 corresponds to the previously described operational procedure.

A very essential feature of the invention is the construction of transformer 14 which is schematically shown in Fig. 2. Primary windings 15 + 16 and secondary winding 13 are fixed on on a common steel core module 45. Primary windings 15 + 16 are placed on the core module in such a way that they, have the same counter induction with secondary winding 13. A magnetic side termination 46 is closely situated next to primary winding 16 and secondary winding 13. It can be seen that secondary winding 13 is related (delegated?) to primary windings 15 + 16 and the side terminations 46 and 47.

The magnetic side terminations 46 + 47 create a path for magnetic flux for primary windings 15 + 16 as well as a path for magnetic flux for the seondary winding 13. Through these magnetic side terminations 46 + 47 together with transformer 14 it becomes possible to $\lim_{t \to \infty} t$ the electric current and also to suppress upper oscilations.

The limitation of the electric current is effected through the creation of two parallel paths for magnetic flux which is represented be lines 48 + 49 for the primary winding 15 AND further through two parallel paths for magnetic flux that are indicated by lines 50 + 51 for the primary winding 16. If the loading 12 becomes too heavy, only that section of the core of the transformer that is 'lutilised' bz the flux paths 48 +50 is saturated whereas lux paths 49 and 51 with a high magnetic resistance are generally not influenced. As a result the electric current in the primary windings 15 + 16 is limited.

A suppression of the upper oscillations can also be achieved because of this new design. Due to the low impedency / impediment (??) of capacitor 36 with regard to upper oscillation voltages the greatest part of the upper oscillation content (?) of the equivalent entrance (input?) voltage (lower line of Fig. 3 + 4) occurs at an effective indution that is carried by a path for magnetic flux 52. The harmonic voltages at such an effective induction suppress the upper oscillation content from reaching loding 12.

In operation power inverters 21 | 22 will transmit squared waves 39 | 40 to primary windings 15 | 16 of transformer 14. During timeinterval t_0 - t_1 , the path for magnetic flux which is indicated by line 53 and the path for magnetic flux 50 rin in opposite directions. This has an extinguishing effect and thus an equivalent entrance for primary windings 15 | 16 is created which as a whole has the value zero. At t_1 the squared wave 40 becomes positive and the magnetic flux 50 is reversed in the direction of line 54. During the time intervall t_1 - t_2 the magnetic fluxes 53 and 54 are additive and induce a counter induction in the secondary winding 13 which is equivalent to the positive pulse 41 in Fig. 3. At t_2 the squared wave 39 becomes negative which has the effect that the magnetic fluxes 48 and 54 run in opposite direction indicated by line 48. During the time intervall t_2 - t_3 the magnetic fluxes 48 and 54 run in opposite direction which has an extinguishing effect and an entrance (input?) equivalent of the value zero is generated. At t_3 the squared wave 40 becomes negative and causes a reversed magnetic flux 54 in the direction indicated by line 50. During the time intervall t_3 - t_4 magnetic fluxes 50 and 48 are additive and cause a counter induction in the secondary winding which is equivalent to the negative pulse

41 in Fig. 3. At L4 the squared wave 39 becomes positive again and thus causes an automatic repetition of the previously described operation.

Fig. 5 shows a typical construction of a power convertor wiring 21 that can be used to generate squared wave 39. A pair of controlled silicon rectifiers 57 + 58 show cathodes that are connected to a mutual termination 59. The anodes of thes rectifiers are connected to terminations 19 + 20. Terminations 19 + 20 are likewise connected to a switch capacitor 60 and also with the cathodes of a pair of rectifiers 61 + 62. The anodes of rectifiers 61 + 62 are connected to termination 25 of a switch induction 64. The other end of induction 64 is connected to termination 59.

In operation a pulse-contact 65 (Fig. 3) is installed between terminations 29 + 59. Therefore the rectifier 57 becomes conductive and thus a positive squared wave is induced on primary winding 15 of transformer 14. At a set time pulse-contact 65 is disrupted and a pulse-contact 66 is installed between terminations 60 + 59 (?). As a consequence rectifier 5X(?) becomes conductive whereas rectifier 57 is then switched off by switch capacitor 60 and the switch induction 64 this is effected in a way as it can be observed with solid power inverter switches. Thus a negative squared wave is induced on primary winding 15 of transformer 14.

The power inverter wiring 22 can be of the kind as it is displayed in Fig. 5 in order to generate squared wave 40 which is induced on primary winding 16 of transformer 14.

Pulse-contact 28 and the voltage- and electric current sensitive switches 33 * 34 can be constructed according to Fig. 3 of the USA Patent Form 3 181 053, whereas the voltage- and electric current sensitive switches regulate preverse voltages (?) that are induced on magnetic amplifiers in order to regulate the relative duration of the tact of the pulse-contacts. Notice that other pulse-contact switches and voltage-contact switches and electric current contact switches can be used.

PATENT CRITERIA

Ç

- 1.) Power inverter for induction of an alternating voltage on a loading, characterized by a transformer with a core made of magnetic material; a secondary winding on this core that is connected to the loading; a pair of primary windings on this core that is coupled inductively with the secondary winding; a capacitor that is connected in parallel with the secondary winding in order to form a harmonic secondary circuit; appliances that induce a pair of squared waves on the primary windings and appliances to regulate the relative phase of these squared waves on the primary windings and appliances to regulate the relative phase of these squared waves in order to induce sufficient excitation on the harmonic secondary circuit with the purpose of compensation for the loading and losses in the secondary circuit once the output / exit (?) voltage has reached the desired value.
- 2.) Power inverter for induction of an alternating voltage on a loading, characterized by a transformer with a core made of magnetic material, a secondary winding on this core that is connected to the loading; a pair of primary windings on this core that is coupled inductively with the secondary winding; a capacitorthat is connected in parallel with the secondary winding in order to form a harmonic secondary circuit; appliances that induce a pair of squared waves on the primary windings and appliances to regulate the relative phase of these squared waves on the primary windings and appliances to regulate the relative phase of these squared waves in order to induce sufficient excitation on the harmonic secondary circuit with the purpose of compensation for the loading and losses in the secondary circuit once the output / exit (?) voltage has reached the desired value; magnetic lateral / (side ?) terminations on the core in order to create a path for magnetic flow which connects the primary windings independently from the secondary winding.
- 3.) Power inverter for induction of an alternating voltage on a loading, characterized by a transformer with a core made of magnetic material; a secondary winding on this core that is connected to the loading; a pair of primary windings on this core that is coupled inductively with the secondary winding; a capacitor that is connected in parallel with the secondary winding in order to form a harmonic secondary circuit; appliances that induce a pair of squared waves on the primary windings and appliances to regulate the relative phase of these squared waves on the primary windings and appliances to regulate the relative phase of these squared waves in order to induce sufficient excitation on the harmonic secondary circuit with the purpose of compensation for the loading and losses in the secondary circuit once the output / exit (?) voltage has reached the theired value. The core shows a few exterior section that hold the primary windings and a middle section between the exterior sections for the secondary winding. A pair of lateral / (side?) termination sections between the exterior sections and the middle section are placed in such a way to form magnetic paths for flux that connect the primary winding s independently from the secondary winding and

at the same time they form magnetic paths for flux for the accordary winding that doesn't connect the primary windings.

- 4.) Power inverter for indiction of an illernating voltage one loading, characterized by a trinformer with a core made of inagencies material; a secondary winding on this core that is connected to the leading a near primary windings on this core that is compared in the leading a near primary windings on this core that is compared indicatively with the accordance windings of specific that is connected in parallel with the secondary winding in order to route a juntation, a counter strain, appliances that indice is pair of squared waves on the primary windings and appliances to regulate the relative paire of the relative paire of the secondary waves in order to indice sufficient excitations on the humanic accordary executively. With the purpose of componenting for the leading and lasses in the secondary executions conduct the path for magnetic flux that reached the desired value, magnetic flux that connects the path for magnetic flux that
- 5.) Dower inverter the induction of an ulternating voldage area leading planage post as a transmire with a core mode of magnetic material, a secondary winding as this core that is considered with the secondary windings at capacitor that is connected inductively with the secondary windings at capacitor that is connected in panellel with the secondary winding in order to form a harmonogeneously within applicances that induces a cure of squared waves on the primary windings, applicates that for sensitive to the voltage at the exit in order to regulate the relative places of these squared waves in media the induce sufficient excitation at the harmonic accordary satisface and in order to make the relative place of these squared waves in media the induce sufficient excitation at the harmonic accordary satisface and in order to an application.
- 6.) Power invener for induction of an alternating voluge on a solding, characterized a transformer with a core made of magnitude injection a secondary wanding on this core that is consisted to the loading artery of printing windings of this core that it countries with the secondary winding a capabloration is connected in parallel with the secondary winding, a bare of power inventor switches that are connected on the printing windings whereas cell of these switches has a pair of resultings that recome alternatingly conductive in order to generally squared waves in the printing windings applicates to request a sold the relative phase of these invelor switches in order to induce sufficient excitation on the harmonic secondary circle and to compellate to the leading lesses once the voltage as the calc has reached the desired value.